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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
SHIGEFUMI SAKAI, ET AL. : EXAMINER: YU, GINA
SERIAL NO: 09/892,577 :
FILED: JUNE 28, 2001 : GROUP ART UNIT: 1617
FOR: SKIN COSMETIC COMPOSITION :

REPLY BRIEF

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

In response to the Examiner's Answer dated July 13, 2006, Appellants provide the following comments.

Appellants have made it clear that a key factor in the present invention is the particular combination of hydrogel particles with an aqueous medium having the recited viscosity and specific gravity in order to provide a composition in which the hydrogel particles are "stably and homogeneously dispersed therein, without precipitating or floating." (see specification at page 18, lines 16-18). However, the Examiner has failed to provide motivation for selecting the viscosity and specific gravity of the aqueous medium other than reciting that the secondary references show cosmetic type compositions having viscosity or specific gravity within the claimed range. The Examiner acknowledges that Delrieu does not disclose a viscosity or specific gravity range. In fact, there is no teaching of such factors anywhere within Delrieu. The Examiner then uses Noda and Rosentreich to "teach" one of ordinary skill in the art to use the viscosity or specific gravity range taught in these secondary

references in the compositions of Delrieu. But the Examiner provides no reason why one of ordinary skill would pick these particular references and the viscosity and specific gravity of the particular references. Neither of these secondary references has any mention of hydrogel particles. Noda is discussing compositions having microcapsules, and Rosentreich doesn't disclose particles at all. Thus the recitation of a viscosity or specific gravity in the reference compositions cannot suggest that such values be combined with hydrogel particles with the expectation of obtaining the characteristics required in the present invention (particularly in claim 51). Just because a reference is in the cosmetic compositions art, and happens to disclose a specific gravity or viscosity does not automatically suggest that one of ordinary skill in the art would pluck those numbers from the references to insert them into another reference in which the compositions are made of entirely different components!

The Examiner is misapplying the law on obviousness in order to combine the presently cited references. In *In re Dembiczak*, the Federal Circuit noted that in order to support an obviousness determination, there must be a showing of a suggestion, teaching or motivation to combine the prior art references and this suggestion, teaching or motivation "must be clear and particular....Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'"¹ The Federal Circuit further noted in *In re Lee*, "when patentability turns on the question of obviousness, the search for and analysis of the prior art includes evidence relevant to the finding of whether there is a teaching, motivation, or suggestion to select and combine the references relied on as evidence of obviousness."² This teaching, motivation or suggestion must also be made in the prior art with specificity. The Federal Circuit notes also in *In re Lee*:

"The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313,1317 (Fed. Cir. 2000) ('particular findings must

¹ *In re Dembiczak*, 175 F.2d 994, 50 USPQ2d 1614 (Fed. Cir. 1999)

² *In re Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002)

be made as the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed'); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ('even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious.')

³ (emphasis added)

The Examiner continues to assert that one of ordinary skill in the art would be motivated to combine the cited references to arrive at the present invention, without any indication as to where the references provide that suggestion or motivation, particularly with respect to the selection of the specific gravity and viscosity requirements of the aqueous medium of the present composition. As an example, in responding to Appellants comments that Rosentreich cannot suggest the viscosity and specific gravity of the present invention, since Rosentreich contains no mention of hydrogel particles (or other type of particles for that matter), the Examiner even goes so far as to state: "Examiner is well aware that the Rosentreich composition does not contain hydrogel particles, however, appellants' claim limitations on viscosity and specific gravity do not bear any criticality either." (see page 10, lines 8-10 of Examiner's Answer).

A key feature of the present invention is the combination of the hydrogel particles with an aqueous medium have certain viscosity and specific gravity limitations, in order to provide a product in which the hydrogel particles are "stably and homogeneously dispersed" in the aqueous medium, "without precipitating or floating". (see specification at page 18, lines 16-18; and the color photo of an embodiment of the present invention showing the dispersed particles therein provided in the last response and in the earlier personal interview).

³ *ibid.*

Thus, for the Examiner to take the position that any reference in the cosmetic arts that happens to disclose a viscosity or specific gravity coinciding with the present invention, even when there is nothing whatsoever in the reference about hydrogel particles, or the balancing of the viscosity and specific gravity in order to obtain the stable and homogeneous dispersion of the particles without floating or precipitating (i.e. suspended within the medium) (see claim 51), does not meet the specificity required by the case law in making an obviousness rejection. The Examiner is merely relying on hindsight based on Appellants own disclosure.

Additionally, the Examiner has erroneously equated agitation of an oil bath (as disclosed by Delrieu) with applying vibrations to the orifice, directly to the dispersion or the emulsion itself or the liquid column being discharged from the orifice (claims 34-36).

Although Appellants assert that one of ordinary skill in the art would recognize that the agitation of the oil bath taught by Delrieu indicates stirring of the oil bath, even if Appellants accept the Examiner's assertion that this could include application of vibrations to the oil bath, such application of vibrations to the oil bath **is not what is claimed in claims 34-36**.

Particularly with respect to claim 35, the vibrations are specifically stated to be either (a) applied **to the orifice** (from which the dispersion of non-crosslinked hydrogel is being ejected), (b) applied **directly to the dispersion or emulsion**, or (c) applied **to the liquid column** being discharged from the orifice. None of these claimed alternatives would be met by agitation of the oil bath or applying vibration to the oil bath. As such, the Examiner's position cannot stand.

Further, the Examiner is incorrectly equating the control of size of Delrieu's hydrogel particles (by agitation of the oil bath) with the present invention control of "shape and/or uniformity of the particles". The Examiner asserts that the prior art method and the claimed method would obviously produce hydrogel particles with uniform size (see page 11, lines 1-2

of the Examiner's Answer). However, even if that were true, there is nothing in Delrieu to suggest that agitation of the bath would have any effect in controlling shape of the particles.

Lastly, with respect to claim 51, the Examiner disagrees with Appellants definition of the term "dispersibility" with respect to Noda. Appellants note that the term "dispersibility" refers to the ease and/or speed with which particles can be put into dispersion in a medium. In support of this position, Appellants provide herewith two references showing that this term has this meaning. First, from the Integrated Pest Management Resource Centre, the term dispersibility is defined as "the ease with which a substance may be dispersed uniformly in a fluid". Second, from the Sintef website

(http://www.sintef.no/static/ch/environment/lab/dispersibility_testing.htm)

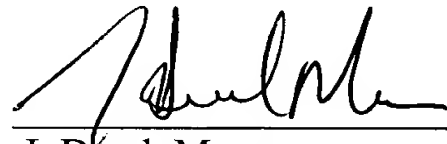
the procedure for dispersibility testing is described, by referring to the dispersion rate. However, it is important to note that the ease with which one can disperse a substance in a fluid says nothing with respect to how stable the resulting dispersion may be. Thus, the fact that Noda refers to adjustment of the specific gravity for "improved dispersibility" does not correlate to providing a specific gravity such that the hydrogel particles of the present invention are **stably and homogeneously dispersed**, as required by Claim 51. The Examiner has provided no evidence that the term 'dispersibility' is directly correlated to the stability of the dispersion formed. Unless the Examiner can provide such evidence, the Examiner's position cannot stand and the use of Noda in combination with the other cited references to render claim 51 obvious must be reversed.

Appellants submit that for the reasons above, and those stated in the prior filed Appeal Brief, the Examiner's position must be REVERSED, and the application be passed to allowance.

Respectfully submitted,

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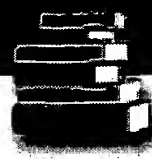
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Glossary of Terms

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Dairy ranching

The practice of keeping cows of relatively low milk yield, either indigenous or low-grade exotic crosses especially of dual-purpose breeds, who are parted from their calves in the evenings, milked out in the morning, and spend the day with their calves at foot; the cows are not milked in the evening.

Dam

Mother. Alternatively an artificial lake made by constructing a wall of earth or concrete, etc.

Damage

The adverse effect on plants or crops due to biotic or abiotic agents, resulting in a reduction of yield and/or quality. Compare with injury.

Dam catchment

Catchment area above a water storage reservoir.

Damping off

The rot of seedlings near soil level or prior to emergence (pre-emergence) or after emergence (post-emergence). Disease or necrotic symptom of disease in seedlings in which the seedling is decayed near the soil line and the seedling topples. Damping-off pathogens may also prevent seed germination and kill the sprout before it emerges from the soil.

Daphnia

A cladoceran (zooplankton) genus that is very common in lake ecosystems and is often used as a test animal for toxicity bioassays.

Data base

The total of all sampling points ('cases') assembled in a convenient form for retrieval and processing.

Data base management

A computerised system which manages data system according to a specific format.

Dauer larva

Nematode juvenile in which development is arrested during unsuitable conditions and resumes when conditions improve.

Days-to-harvest

The least number of days, established by law, between the last pesticide application and the harvest date, as set

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Disinfectant

Agent that kills microorganisms e.g. a chemical or other agent that kills or inactivates micro-organisms in animals, seeds or other plant parts, chemicals used to clean or surface sterilise inanimate objects.

Disinfest

To kill pathogens that have not yet initiated disease, but that occur in or on such inanimate objects as soil, tools and so on, or that occur on the surface of such plant parts as seeds.

Disinfestant

An agent that kills or inactivates pathogens in the environment or on the surface of a plant or plant organ before infection takes place.

Disorder

Any harmful deviation from normal plant physiological processes due to abiotic factors.

Dispersal

Movement and spread of individual organisms out of a population (emigration) or into a population (immigration).

Dispersal unit

Seed plus associated tissues of flower, fruit or specialised leaves. Any device for spread and survival that can be recognised visually and counted.

Dispersibility (in relation to pesticides)

The ease with which a substance may be dispersed uniformly in a fluid.

Displacement

In dispersal unit transport, the process by which the unit is actually moved from the point of formation to the point of landing; the middle process of the dispersal act consisting of takeoff, flight and landing, or liberation, displacement and deposition.

Dissemination

The transport of inoculum or pest from a diseased to a healthy plant.

Dissolved oxygen

Oxygen dissolved in water and used by aquatic organisms for respiration processes.

Distal

Away from the point of attachment.

Distome

Fluke with two suckers; oral and ventral.

Distribution

Dispersal and spread of an organism to areas outside of its previous geographical range; 'geographical distribution' is synonymous with 'range'.

Disulphide bond

A bond formed between the sulphur atoms of two different organic compounds, such as cysteine; often responsible for joining different proteins or bending the primary amino acid sequence into a more complex structure.

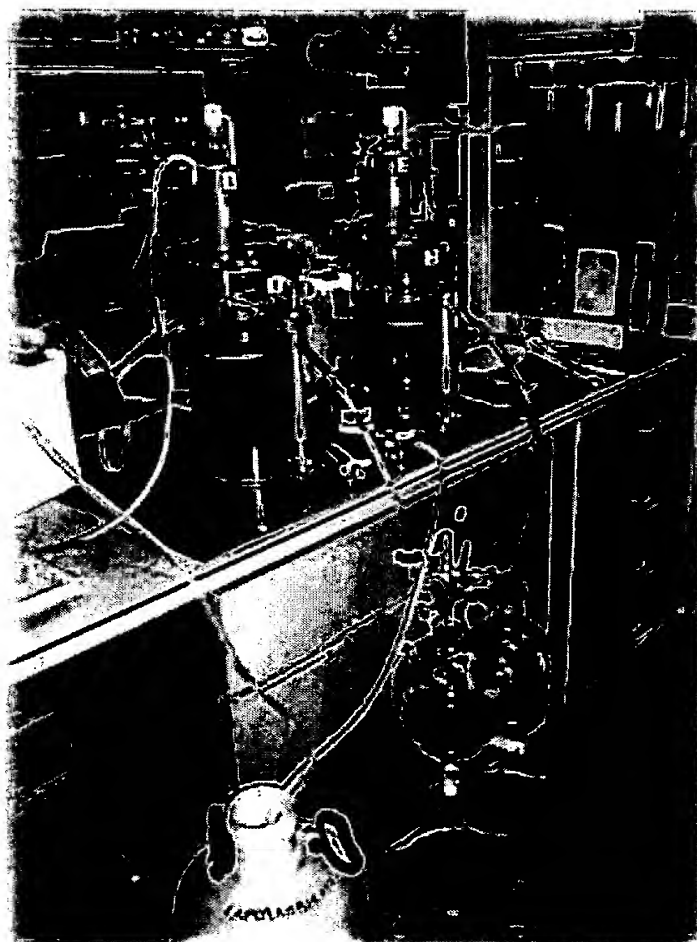
Diurnal

Active during the daytime. Daily.

Diversity index

A measure of the number of species and the evenness of the distribution of population or biomass among species

Dispersibility testing



Chemical dispersants enhance the natural dispersion-rate by reducing the interfacial tension between oil and water. The slick is broken into small droplets, which will disappear into the sea. The oil laboratory is performing dispersability testing with some of the most recognized test-methods (IFP, MNS, WSL, Exdet). The oil droplet size and distribution are measured by a particle size analyzer. This forms the basis for selection of the best dispersant for the current oil and estimation of the "time-window" for use of dispersants in a spill situation at sea.

Illustration: The IFP test is a low energy dispersibility test. Energy is applied to oil on surface by a submerged beater-ring and dispersed oil is collected from the bottom of the vessel.

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